

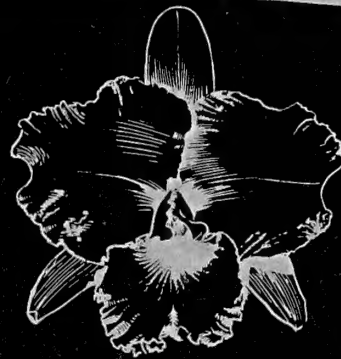
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1958

Or

List #40

Quality



CATTLEYA SEEDLINGS

Special List No. 40

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U. S. Department of Agriculture

*A Special Listing of New
Genetically sound, superbly bred
Sturdy Cattleya Crosses.*

Fred A. Stewart, Inc.

Regal Purples, Exhibition Whites, Rich Yellows, Red Sophros, Unusual Crosses...

SPECIAL CATTLEYA LIST NUMBER 40

1958

Cattleyas are, and probably always will be, the most popular type of Orchid grown throughout the world. We are aware; however, that in certain parts of the world, such as Hawaii, Vandas are the most popular, as are Cymbidiums in the Southeastern parts of Australia. From a world wide view point Cattleyas are the favorites. As most Orchid fanciers know, Stewart-bred Cymbidiums are world famous for their excellence of quality, and this genus, along with Cattleyas shall continue to be one of our major types.

At the present time, throughout the Orchid world, it is easy to buy Orchids. Some are very good; some very bad. We keep this fact before us and realize that in order to merit your business, we must be known for the finest and latest developments in Orchid breeding. We believe integrity, quality, and service are the three inseparable foundation stones indispensable to any successful business.

We are always interested in customer reaction concerning our stocks. We recognize particularly, that variations are possible in seedlings, and we ask for your comments when you flower them. We are, of course, delighted when you can praise them, and we value equally your comments if you are disappointed.

The interest in growing Orchids in America, and throughout the world has increased tremendously. When a person starts to grow Orchids, he will find his interest continues for many years and in a high percentage of cases will continue all his life.

This listing consists almost entirely of unflowered seedlings in various sizes from those a year out of the bottle to near flowering size crosses. These crosses represent the highest development in skill, experience and scientific principles applied to modern plant breeding. A check through the records will show that Stewarts were one of the first commercial Orchid breeders in the world to recognize and utilize in their breeding program the principles of basic genetics and modern plant breeding. For years, we have felt that many lists which Orchid fanciers and growers receive through the mails are meaningless jumbles of names for usually the grower does not explain his reasons for making the cross, nor does he predict an expectancy other than basic color and general season. We believe when offering a cross, the grower should explain why he made it, and what he expects, as well as information about the qualities of the parents, or any other data that might assist the prospective purchaser. This listing carefully follows these beliefs, and in addition to being a listing of stocks from which you may purchase, we wish it to show you what we are doing in hybridizing at Stewarts and be a source of general Orchid breeding information.

The reader will find much attention has been paid to yellow and novelty crosses as well as to outstanding exhibition purples, Whites and whites with purple lips. In recent years, considerable work has been done in the use of new or seldom used species or hybrids to breed crosses that are unusual, distinctive and beautiful. You will find a number of crosses of this type in our listing.

Another bonus which you get when you purchase Stewart-bred stocks is that they are "vigor tested". By "vigor tested", we mean a cross is not offered for general sale until it has proven that it can grow well. If plants are offered in seedlings smaller than about a year old the mortality rate can be very high in many cases. Within the year to eighteen months we hold most crosses before selling, we have ample opportunity to check them for strong uniform growth and rule out or completely discard any cross regardless of quality that does not have uniform good vigor. We know you benefit, because you will not have a lot of puzzling laggards in your collection and we benefit because our customers receive plants that grow well.

In conclusion, this list is designed for those who know and want Orchid seedlings of the very finest breeding. Where possible, we have indicated the cytology (Chromosome counts) of crosses and parents as well as other information of value. The novice who may wish to purchase but one Orchid plant for his window sill, will find this listing just as exciting as the most experienced commercial grower. The listing, however, is intended primarily for those who have some knowledge of Orchids and wish to add new and improved lines of breeding to their collection.

No order is too small or too large to be of interest to us. Shipments from one plant to a thousand go out every day of the week to all parts of America and the world. We look forward to having the pleasure of serving you.

Fred A Stewart

The reader will find much attention has been paid to yellow and novelty crosses as well as to outstanding individual plants. Whites and whites with purple lips. In recent years, some of the work has been done in the use of new or seldom-used species of hybrids to breed crosses that are unusual, distinctive and pleasing. You will find a number of crosses of this type in our listing.

Another point which you get when you purchase a seedling stock is that they are "virgin tested". By "virgin tested" we mean a cross is not offered for general sale until it has produced a plant it can grow well. If plants are offered in seedling stock, about a year old the mortality rate can be very high in many cases. Within the year to eighteen months we hold most crosses in seedling. We have ample opportunity to check these for vigor, growth and rule out or completely discard the cross seedlings of quality that does not have uniform good vigor. We know a seedling because you will not have a lot of quality seedlings in your collection and we benefit because our customers receive plants that grow well.

In conclusion, this list is designed for those who know and want Orchid seedlings of the very finest breeding. When possible, we have indicated the color (chromosome count) of crosses and parents as well as other information of value. Some novelty crosses may wish to purchase but one or two plants to grow and find this list just as exciting as the most advanced commercial grower. The list, however, is intended primarily for those who have some knowledge of orchids and wish to add to their improved lines of breeding to their collection.

No order is too small or too late for our service. Shipments from our plant to a thousand go out every day of the year to all parts of America and the world. We look forward to the pleasure of serving you.

Wm. A. ...

WHITE WITH YELLOW LIP CROSSES

#112, C. WHITE SAIL X C. BOW BELLS, 'GABRIEL', Bronze Certificate. The superb white hybrids bred from Black and Flory Bow Bells are too well known to need a lengthy description. While we have not flowered any of these seedlings as yet we are confident of large heavy textured exhibition whites. Season late fall and early winter! 4" \$12.50, 5" \$15.00

#150, C. LOS GATOS, (C. Barbara Billingsley x C. Estelle alba, 'Cynosure'). We have flowered enough seedlings of this triploid cross so we can say it has proven to be a great exhibition white for winter. Cynosure's star is in its ascendancy as a tetraploid white parent. Growth is vigorous and compact. Flowers are large and freely produced. Season throughout the winter.

4" - \$12.50, 5" - \$15.00, 6" with 2 or more leads - \$25.00.

#168, C. MADELEINE KNOWLTON, (C. Bow Bells AM/AOS x Joyce Hannington, 'Sarras'). This superb white cross might be called a natural one to make for both parents are world famous for their quality. Plants which we have flowered have had medium sized flowers of excellent shape and really remarkable substance. As is characteristic of most polyploids, growth is somewhat slower than a diploid but very strong. Chromosome counts have ranged from aneuploids through triploids, tetraploids and pentaploids. Season is fall. We have discarded most of the aneuploids and the plants we offer here are selected strong growing unflowered plants. 4" - \$12.50, 5" - \$17.50.

#194, C. JOYCE HANNINGTON, (C. Barbara Dane, 'Perfecta' x C. Snowdon, 'Mutch's'). A splendid exhibition white cross that blooms in the fall and early winter. As with C. Madeleine Knowlton, all seedlings have proven to be polyploid. We have discarded the laggard forms and offer strong vigor tested unflowered plants. 4" - \$12.50, 5" - \$15.00, 6" - \$20.00.

#199, C. NEW ALBION, (C. Joyce Hannington, 'Sarras' x C. H. L. Dillon). A splendid exhibition polyploid white Cattleya. We have sold a number of selected forms of this cross in bloom for from \$50.00 to \$150.00 a plant. We have several dozen strong unflowered seedlings in 4 inch pots to flower in one year or less. - - - - - 4" - \$15.00.

#240, C. EDITHIAE X C. LODDIGESII, 'STANLEY'S', FCC/RHS. A handsome bifoliate spring flowering wedding white on the order of Celia.

#241, C. MARGARET STEWART, (C. Dorothy Mackaill x Loddigesii, 'Stanley's', FCC/RHS). Margaret Stewart is now well established as a fine new white Cattleya on the order of Celia, Snow Song, Henrietta Japhet and others of this line of breeding. Plants are bifoliate, flowers 4 to 5 inches, 2 to 6 in a spray. Season 2 or 3 times a year, in spring, again around August or September and clear through Christmas. 3" - \$6.00, 4" - \$10.00, 5" - \$12.50, 6" - \$15.00.

WHITE WITH YELLOW LIP CROSSBREDS

#115, C. WHITE SAIL X C. NEW BELLS, 'GARDNER', Bronze
Certificate. The superb white hybrid bred from Black and
Flory New Bells are too well known to need a lengthy descrip-
tion. While we have not flowered any of these seedlings as
yet we are confident of large heavy textured exhibition white.
Season late fall and early winter. \$12.50, 5" - \$15.00.

#150, C. LOS GATOS, (C. Barbara Billingsley X C. Eschscholzia
'Cynosurus'). We have flowered enough seedlings of this tri-
ploid cross so we can say it has proven to be a most exhibi-
tion white for winter. Cynosurus' story is in its seasonality
as a tetraploid white parent. Growth is vigorous and compact.
Flowers are large and freely produced in early spring.
the winter.
4" - \$12.50, 5" - \$15.00, 6" - \$17.50 or more in 6" - \$20.00.

#158, C. MARCELLE KNOWLTON, (C. L. Bell X C. Los Gatos X
Hannington, 'Barrie'). This superb white and yellow tri-
ploid called a natural one to make for both parents a most ex-
cellent quality. Plants which we have flowered have
had medium sized flowers of excellent shape and color. The
shape substance. As is characteristic of most polyploids,
growth is somewhat slower than a diploid but the plants
Chromosome counts have shown triploid and tetraploid plants.
ploids, tetraploids and pentaploids. The plants have
have discarded most of the triploid and tetraploid plants.
offer here are selected among numerous other plants.
4" - \$12.50, 5" - \$17.50.

#197, C. LOYCE HANNINGTON, (C. Barbara Billingsley X C. Eschscholzia
C. Shannon, 'Munich'). A splendid exhibition white and yellow
that blooms in the fall and early winter. The plants are
elegant. Knowlton, all seedlings have proven to be triploid.
We have discarded the largest forms and other strong plants.
tested-unflowered plants. 4" - \$12.50, 5" - \$15.00, 6" - \$17.50.

#199, C. NEW ALBION, (C. Loyce Hannington X C. Eschscholzia
H. L. Dillon). A splendid exhibition white and yellow.
We have sold a number of selected forms of this plant.
plant for from \$10.00 to \$15.00. The plants are very strong
dozen strong unfloored seedlings in 1 inch pots for \$10.00
in one year or less. 4" - \$12.50, 5" - \$15.00, 6" - \$17.50.

#240, C. EDITHIA X C. LODDICE, 'GARDNER', Bronze
A handsome bifoliate spring flowering variety in the
order of Gelia.

#241, C. MARGARET STEWART, (C. Dorothy Gaskell X C. Eschscholzia
'Stanley', 'Foolish'). Margaret Stewart as a new white and
labeled as a fine new white. Gaskell on the other hand is
Snow Song, Henrietta and others of this class. The plants
Plants are bifoliate. Flowers 4 to 5 inches, 4 to 5 inches.
Season 2 or 3 times a year, in spring, again autumn and
September and clear through Christmas.
3" - \$6.00, 4" - \$10.00, 5" - \$12.50, 6" - \$15.00.

#256, C. JOYCE HANNINGTON, 'SARRAS' X C. EDITHIAE, 'URMSTON'S'. Seedlings counted here have all been polyploids ranging from tetraploids to triploids. The same Joyce Hannington was used here as in our famous #199 cross, C. New Albion. Expectancy is for very large, exhibition whites on the order of the best Bow Bells crosses. probable season throughout the winter months. 2" - \$3.00, 2½" - \$4.00, 3" - \$7.50.

#257, C. HENRIETTA JAPHET, (C. Eucharis, 'Urmston's' x Loddigesii, 'Stanley's', FCC/RHS). A repeat of a famous white wedding Cattleya of the cluster type. The same Loddigesii was used as in the original; however, a different but equally fine Eucharis was used. Season summer and early fall with second blooms in many cases during the winter. 3" - \$6.00. (Most will flower within 12 months)

#264, C. BOB BETTS X C. ANN ALBERTS. Somewhat speculative because of the triploidy involved. However, plants offered here are vigor selected forms that should grow well for the purchaser. There should be some very fine whites. 2½" - \$4.00, 3" - \$6.00.

#271, C. FLORENCE PATTERSON X C. BOB BETTS, 'WILLIAMSON'S'. For snowy whiteness, large size, perfect shape, and a general all around near perfect qualities, we have not seen another form of C. Bob Betts to surpass the one used here. Since it has proven to be most satisfactory in breeding top exhibition Cattleya hybrids, we selected a very large diploid white Florence Patterson to combine with it. Season will probably be throughout the fall and winter months. We have every confidence for many of the finest possible polyploid exhibition white Cattleyas. 1 3/4" - \$2.00, 2" - \$3.00.

#274, C. CLARISIANA ALBA X C. BOB BETTS, 'GLACIER'. Here we have a handsome, waxy white, heavy textured hybrid from Intermedia alba by the famous prize winning white Cattleya, Bob Betts. Will probably strongly favor the first parent because of growth of plants at this time. Sure to be very worthwhile. 2" - \$3.00, 2½" - \$4.00.

#275, C. LODDIGESII, 'STANLEY'S' FCC/RHS X MOSSIAE, 'WAGENERI', B-32. We have been one of the leaders in the use of Loddigesii, 'Stanley's' to breed the ever popular so called wedding whites, such as Snow Song, Celia, Vesper, Angelus, Henrietta Japhet and others. The Mossiae used here is a third generation home bred white Mossiae. The particular form used is the best out of over several hundred plants. As is typical of practically every Loddigesii, 'Stanley's' hybrid, many of these can be expected to flower two or three times a year. Flowering habit should be very free. Approximate season should be May-June and again around December. Plants are strong growers. 2" - \$3.00, 3" - \$6.00.

#256, C. JOYCE HANNINGTON, SARASOTA, FLA. EDITHA, 1940-41.
Seedlings counted here have all been polyploid triploids.
tetraploids to triploids. The same Joyce Hannington
here in our famous #199 cross, C. New Alford, 1940-41.
is for very large, exhibition white in the color of the
How Belle crosses. - probably season through the summer
months - 2" - 33.00, 2 1/2" - 44.00, 3" - 57.00.

#285, C. HENRIETTA JAPHET X C. BOB BETTS, 'PIEDRA BLANCA'. The first parent bears handsome sprays of 4 and 5 inch waxy white flowers and is of the so-called cluster type. Bob Betts is one of the finest of the conventional polyploid white Cattleyas. Flowers here will be very much on the order of the famous Cattleya Pearl Harbor! Season variable, may bloom twice a year with a fair percentage in the desirable fall months of August-September-October. 1 3/4" - \$2.00, 2" - \$3.00.

#289, C. BOW BELLS, 'CUNNINGHAM' X C. PAMELA STEWART, 'OCTOBER'. Here we have promise of an outstanding exhibition polyploid for the fall months. Pamela Stewart is a diploid cross of ours, and one of the most profitable white Cattleyas for fall which we have seen. 1 3/4" - \$2.25.

#304, C. SOUTHERN BELLE X CLARISIANA. The expectancy here is for very heavy textured waxy white flowers with little, if any, lip coloring. Seedlings are strong growers, and, as with #305, should be very profitable for cut flowers as well as a beautiful cross. Plants bifoliate. Flowers about 4" across. C. Clarisiana is a C. Intermedia alba hybrid. 1 3/4" - \$2.00.

#305, C. EDITHIAE X C. CLARISIANA. The seed parent used here is of the conventional white type and is a selected form of the famous cross Edithiae. The pollen parent is a delightful waxy white hybrid of the so called cluster type Cattleyas. This cross will be quite similar to the very popular Cattleya Louise Georgiana and other waxy white hybrids stemming from Intermedia alba. Seedlings are strong growers. Difficult to predict season, in fact plants could flower 2 or 3 times a year due to various influences in breeding. Should be very free blooming and especially profitable from a cut flower standpoint. 1 3/4" - \$1.75, 2" - \$3.00.

#1848, C. BOW BELLS X C. VESPER. Best described as a polyploid white cross which should be very similar to the famous C. Pearl Harbor or C. Leah Adis. Season probably fall and early winter. Plants are good growers. 3" - \$7.50.

WHITE WITH PURPLE LIP CROSSES

#202, Lc. ALBULA, 'CELESTE' X Blc. NANETTE. Few, if any Cattleya hybrids are any more spectacular than a good large white Brasso with purple lip. Both parents used here have proven themselves outstanding and we feel this should be an especially happy combination for those who want the spectacular. Blc. Nanette is perhaps the best known Brassocattleya in existence. Season late fall throughout the winter months. 3" - \$6.00, 4" - \$10.00.

#224, Lc. CLIMAX, (Lc. Albula, 'Celeste' x C. Enid alba). If you wish a large spectacular pure white with solid purple lip, we can recommend this cross most highly. The main season will run throughout late fall and winter months. 4" - \$10.00.

#233, Lc. ALBULA, 'CELESTE' X C. LABIATA, 'ROEBLINGIANA'. The same Albula used here as in our famous Lc. Climax (see #224). The labiata used is a fine white with purple lip form of this species. Season October-November-December primarily. 4" - \$10.00, 5" - \$12.50.

#260, Lc. CANHAMIANA ALBA, 'STEWART'S X C. ARDMORE ALBA. We offer this as a very satisfactory, free blooming, profitable April-May-June white with purple lip. Both parents were selected from several hundred plants of their respective crosses. We especially recommend this to those who raise for the market and want a good large free blooming white with purple lip for spring and early summer. 3" - \$6.00, 3½" - \$8.00, 4" - \$10.00.

Figure 1. A schematic diagram of the experimental setup. The subject is seated in a chair, viewing a video screen. The screen displays a target (a small circle) and a starting point (a larger circle). The subject's hand is positioned at the starting point. The distance between the starting point and the target is labeled as d . The subject's hand is moved towards the target, and the distance between the hand and the target is labeled as x . The subject's hand is moved towards the target, and the distance between the hand and the target is labeled as x . The subject's hand is moved towards the target, and the distance between the hand and the target is labeled as x .

#61, JULIANA EMBREE, (C. Bowringiana x C. Porcia, 'Canizarro', AM/RHS). Best described as intermediate between the two parents. Flowers in heads of up to 15 to the spray about 3 inches across. Very charming free flowering bifoliate for fall. 4" - \$7.50, 5" - \$10.00.

#147, Lc. TRAILS END, (Lc. Joseph Hampton x C. Labiata). A repeat on a superb exhibition purple cross that has already won many prizes. Season around October, may be nicely controlled for Christmas. 4" - \$10.00, 4½" - \$12.50.

#158, Blc. CHIEF JOSEPH X C. LABIATA F-2. Contrary to some accepted concepts of breeding there is a strong and successful swing to crossing good yellows with purples as here. Flowers should be purple; however, many will have yellow, copper and orange tones underlying. Many will have especially attractive velvety lips. 4" - \$10.00, 5" - \$15.00.

#162, Lc. GERTRUDE HAMPTON X C. AMABILIS, 'CONTENT'. C. Amabilis is perhaps one of the most profitable, productive and spectacular straight Cattleyas we have seen. Variety Content which was used here is one of the best from over 4,000 of this cross. An excellent purple for exhibition or control for the cut flower market. 3" - \$6.00, 4" - \$10.00.

#170, C. LABI-ROYAL X Lc. TRAIL'S END. A somewhat speculative cross; however, both parents are superb dark purples. The Labi-Royal parent should improve the shape while maintaining the large size and spectacular lip of the Trail's End parent. Season primarily fall. 3" - \$6.00, 4" - \$10.00.

#172, C. LABIATA F-2 X Lc. HILARY, FCC/RHS. A surprising number of distinguished hybrids have come from the famous Lc. Hilary. We feel this mating will add further to the list of its distinguished progeny. Fine exhibition purples for fall primarily. Controllable for Christmas. 4" - \$10.00.

#179, Lc. JOSEPH MARK, (Lc. Cuesta x C. Labiata). This cross is the same as #197 except that different clone parents were used. The several plants we have flowered can best be described as resembling dark Cattleya Tethys. 4" - \$10.00, 5" - \$12.50, 6" - \$15.00.

#181, C. LABIATA X Lc. GERTRUDE HAMPTON. We have favored Lc. Gertrude Hampton as a parent because of its excellent shape and unusual coloring. As there is L. tenebrosa several generations back, some forms have flame overtones with cold purple shadings. We have flowered several seedlings of this cross and they have been quite outstanding. Season mostly fall and early winter. 4" - \$10.00, 5" - \$12.50, 6" - \$15.00.

#197, Lc. JOSEPH MARK, (Lc. Cuesta tetraploid x C. Labiata F-2). A rich dark purple with the brilliant reddish tones and velvety lip of the finest Cuesta hybrid. Controllable for Christmas. 4" - \$10.00, 5" - \$12.50.

#204, Lc. BACCHANTE X Lc. PRINCESS MARGARET, 'MAGNIFICA'. Hybrids derived from the various superior forms of Lc. Princess Margaret are as fine as any group of Cattleya hybrids in the world today. Large size, rich coloring, good substance and heavy texture as well as excellent growth are all trademarks of these crosses. Another quality all too often overlooked is the fact that many Princess Margarets flower as early as May-June. Most seedlings are polyploids. 3" - \$6.00, 4" - \$10.00.

#213, C. ARDENTISSIMA, (C. Peetersii, very dark x C. FABIA, 'Firefall'). Ardentissima means "darkest". The first we flowered was a sparkling really dark purple. The Fabia, 'Firefall' bears up to six magnificent flowers on a fine erect stem. Here is a cross to get if you are looking for good darks. Easily light controlled. Some excellent parent stock will show up here. 4" - \$10.00, 5" - \$12.50.

#217, Lc. IBBIE, 'URMSTON'S' X Lc. JOSEPH HAMPTON, VERY FINE. We feel this cross will make an excellent name for itself. Can best be described as on the order of Lc. Molly Tyler. Flowers about 4 inches, from three to eight flowers in a spray. Very sparkling texture with color surprisingly warm, many resembling an Slc. in their reddish coloring. Solid dark lips. Late fall and winter. 3" - \$6.00, 4" - \$10.00, 5" - \$12.50.

#244, Lc. CUESTA, FINE TETRAPLOID X C. FEETERSII VERY LARGE DARK. A tremendously promising triploid from which we are expecting some of our most spectacular dark Laeliocattleyas. We have not flowered any as yet; however we are raising a substantial block because of its excellent promise. Season late fall and early winter. Rich, dark exhibition. 3" - \$6.00 4" - \$10.00, 5" - \$12.50.

#246, Lc. TOKYO ROSE, 'ENCHANTRESS' X C. PEETERSII VERY DARK. Here is an excellent chance for some real exhibition purples. Both parents very dark free flowering and richly colored. The season - late summer, fall. 3" \$6.00, 4" - \$10.00.

#250, Lc. DESNA, 'ENCORE' X Lc. HIRAMII. We rate Lc. Desna, 'Encore' as one of our top studs. It is one of the parents of Lc. Castiron Monarch. The flowers of this variety are large, round, flat and heavy textured. Lc. Hiramii is one of our loveliest and freest blooming spring hybrids. We expect many superb spring bloomers for the difficult months of May and June. 3" - \$6.00, 4" - \$10.00.

#254, Lc. GITCHE MANITO, 'GOLIATH' BRONZE CERTIFICATE VARIETY X Lc. ARECA, 'MODEL', FCC/AOS 1958. We find it easy to enthuse over the tremendous possibilities of this superb exhibition purple cross. Season fall and winter. 2½" - \$4.00.

#261, C. PORCIA, 'CANIZARRO', AM/RHS X Lc. JOSEPH HAMPTON. The most famous of the purple cluster Cattleyas by a famous exhibition purple. Seedlings of this cross are bifoliate and have very dark purple foliage. Flowers will come in heads of 4 to 6 or 8 flowers about 4 inches across and should have very rich coloring. Season summer and fall. Very vigorous. 2½" - \$4.00, 3" - \$6.00, 3½" - \$8.00.

1. The first group of plants, which are the most common, are the ones that have a single leaf. These plants are usually found in the open fields and are very common in the mountains. They are usually found in the open fields and are very common in the mountains. They are usually found in the open fields and are very common in the mountains.

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#262, Lc. JOSEPH HAMPTON X C. PORCIA, 'CANIZARRO', AM/RHS. This is the reverse of #261. It is difficult to say what the difference will be; however, as is generally the case, there will be some difference, and we suggest those who are interested in this cross get a couple of each.
2½" - \$4.00, 3" - \$6.00, 3½" - \$8.00.

#263, Lc. YELLOWSTONE X C. PORCIA, 'CANIZARRO', AM/RHS. As the name implies, Lc. Yellowstone is yellow with a crimson and gold lip. The second parent is perhaps the most famous of all the so called cluster Cattleyas and has a number of superb hybrids to its credit. Colors here should range mostly throughout shades of purple and reddish purple, with some flame colors. Bifoliate; season summer. 2" - \$3.00, 3" - \$6.00, 3½" - \$8.00, 4" - \$10.00.

#269, Lc. JOSEPH P. SMITH, (Lc. Gertrude Hampton x Lc. Tokyo Rose, 'Enchantress'). Large shapely dark exhibition purples. Season throughout the winter. 3" - \$6.00, 4" - \$10.00.

#278, Lc. JOSEPH HAMPTON, 'PAGEANT' X Lc. BONANZA, 'PIONEER'. We have every confidence that this cross will give us some of the finest exhibition and prize winning purples in the next few years. Selected forms of Lc. Joseph Hampton, as is the variety offered here, have established themselves as top parents. We offer this superb purple cross with every confidence to those who wish the finest possible quality. Seedlings have very dark foliage. Season variable through fall and winter, primarily. 2" - \$3.00.

#279, C. PORCIA, 'CANIZARRO', AM/RHS X Lc. BONANZA, 'PIONEER'. We could use a good many superlatives in showing our enthusiasm for this cross. Porcia parent is perhaps the most famous of the Cattleya hybrids of this type and bears up to 10 and 12 four inch flowers of splendid shape and rich coloring. The second parent is a tetraploid of magnificent dark exhibition qualities. Expectancy is for a bifoliate cross, in the main, intermediate between the two parents. Seedlings are strong growers and have very dark foliage. Season probably fall through early winter. 2" - \$3.00.

#280, Lc. BONANZA, 'SIX GUN X FOTINARA, 'MEDIA' AM/RHS. We have not used many Potinaras for breeding because of their complex parentage. (Fotinara is the hybrid name for a Sophro-laelio-brasso-cattleya). There are sure to be some very richly colored exhibition Fotinaras here for those who are interested in growing on a few. 1 3/4" - \$2.00.

#283, LC. JOSEPH HAMPTON, 'STEWART' X LC. ARECA, 'MODEL' FCC/AOS 1958. We can think of few parents that should make a more happy combination than these two. Lc. Joseph Hampton is a superb tetraploid. The famous Lc. Areca is perhaps more sought after than any plant in America today. It is one of the few Cattleyas in recent years to win a First Class Certificate from the American Orchid Society. Season will probably be fall and winter in the main, though it can be expected to vary somewhat from this normally. 2" - \$3.50.

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#286, Lc. GITCHE MANITO, 'SAN GABRIEL' X C. ROYAL VESTMENT.
The pod plant used here was also used to make our famous cross #86, Lc. Marian Andrews. The Gitche Manito parent is superb, with flowers full round, richly colored and with especially dark lips. We have found it imparts these qualities to its progeny. Lc. Royal Vestment is a spectacular large dark Laeliocattleya bred from Cattleya Peetersii x Cattleya Labi-Royal. Season early summer throughout fall. 1 3/4" - \$1.75.

#287, C. PORTIA, (C. Bowringiana variety Black Prince x C. Labiata, fine F2). C. Portia was first registered in 1897 and has been remade many times. We do not believe, however, it has ever been made with the famous Black Prince. The flowers should come in heads of from 4 to 10 flowers, each about 3-4 inches across. A few seedlings of this cross should be in everyone's collection. The commercial grower should find it an excellent cut flower proposition as it is easily controlled for Christmas. 2" - \$3.00, 3" - \$5.00.

#290, C. LABI-Royal B399 X Lc. JOSEPH HAMPTON, 'STEWART'S'. Seedlings of this cross are triploids (60 Chromosomes). C. Labi-Royal is a round, dark, flat flower of excellent shape. The Joseph Hampton is our famous tetraploid form of this cross. Superb exhibition varieties with rich color and especially fine lips. Season fall and early winter. 1 3/4" - \$2.00.

#291, Lc. CUESTA, 'SOVEREIGN' X Bc. HARTLAND, 'ANDREWS'. Lc. Cuesta, 'Sovereign' is a tetraploid for which we originally paid \$500.00. Seedlings of #291 which we have counted have been tetraploids (80 Chromosomes). Bc. Hartland is one of the parents of Blc. Norman's Bay and bids fair to be the parent of more than one fine cross. Available in 1 3/4" only - \$2.75.

#295, Lc. DOROTHY FRIED, 'ROYAL ROBE' X Lc. JOSEPH HAMPTON, 'STEWART'S'. A superb exhibition Laeliocattleya. Interestingly, some of the best Cattleya parents have been triploids as is the Dorothy Fried used here. The second parent is a proven tetraploid. Recent research has shown that combining parents of these counts may give a number of pentaploids. The seedlings here grow well and we have every confidence for many exhibition quality purples. Difficult to predict season; however, the Dorothy Fried parent has flowered every May and June for us for many years. Many will probably flower twice a year. 1 3/4" - \$1.75.

#300, Lc. BONANZA, (Lc. Bonanza, 'Etta Gray' AM/AOS 1957 x Self). Here is a cross which is the result of selfing one of the finest forms we have seen of the internationally famous Lc. Bonanza. Flowers of Bonanza, 'Etta Gray' AM/AOS are very large, dark royal purple and of excellent shape and substance. Seedlings we have counted from this cross have been tetraploids. The growth is strong and very uniform. Foliage in practically all seedlings is very heavy with anthocyanin (purple sap) which generally has a relationship or is indicative of dark flower color. 1 3/4" - \$2.50, 2" - \$3.75.

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#1789, Lc. MIRA, (Lc. Winter Belle x Lc. Tegucigalpa). A very beautiful, large, shapely, richly colored winter flowering purple. You will like this for exhibition or market production for winter, 3" - \$6.00, 4" - \$10.00, 5" - \$12.50.

UNUSUAL CROSSES

Noveltys - Reds

#216, Lc. CANHAMIANA ALBA X C. LEOPOLDII, GUTTATA VARIETY.
A type of hybrid that is gaining considerable favor. A white with purple lip crossed with the many flowered (up to 30 flowers) spectacular greenish bronze Leopoldii. Bifoliate, summer-fall. 3" - \$6.00, 4" - \$10.00.

#259, Lc. SOUVENIR DE BONITA X C. BOWRINGIANA, 'COERULESCENS'.
A speculative cross which we offer to those who like to try a long shot occasionally. The first parent is a white with a solid purple lip, while the second is a form of the species that had quite bluish colored flowers. We are hoping that some of this cast will show in some of the progeny. Blue is rare in Cattleyas and we hope for a few of this shade here. 2" - \$3.00, 3" - \$7.50.

#276, Lc. CUESTA X Slc. ANZAC, 'ORCHIDHURST', FCC/RHS.
Admittedly, most Slc crosses are speculative. However, we are still intrigued with the possibility of a few outstanding ruby red forms from this cross. We feel enough will come outstanding to warrant the grower trying a few. Lc. Cuesta is a famous large, dark purple Laeliocattleya and, of course, the Slc. parent is far and away the most famous of its group. 3" - \$6.00, 4" - \$10.00.

#312, PORCIA, 'CANIZARRO', AM/RHS X Sl. PSYCHE. Though we are certain the red of the Psyche will predominate here it is difficult to say at this stage what the growth habit will be. There are bound to be some bifoliate and we feel the growth habit should be quite dwarfed. This will surely intrigue those who want something different, charming and beautiful. Bare root seedlings 1"-1½" leaf length - \$1.75.

#316, C. HENRIETTA JAPHET X Sl. PSYCHE. Sophrolaelia Psyche is tomato red with no Cattleya blood and is bred from Sophronitis grandiflora x Laelia cinnabarina. It is one of the ancestors of most of our finest modern day Sophro hybrids. This charming richly colored plant has been crossed here with one of the best known white cluster Cattleyas. It has been proven in recent years that when a cross such as this is made, the majority will come in orange, yellows, creams, salmon and all possible combinations of these basic colors. We offer these as bare root seedlings from fir bark flats, approximately 15 months old. These seedlings have an average leaf length about 3/4" and are not large. Due to the Sophrolaelia parent, plants of this cross will probably not be tall growers. Plants will probably be free blooming as both parents are easily flowered. Local test sales of this cross have found good customer response. We are confident you will like it, too. Bare root seedlings \$1.75 each.

MEMORANDUM

TO : THE SECRETARY OF THE ARMY
FROM : THE CHIEF OF THE ARMY
SUBJECT: [Illegible]

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#317, Sl. PSYCHE X B. DIGBYANA. Sl. Psyche is the very rare tomato red primary red hybrid that has figured in most of our best modern day *Sophrolaeliocattleyas*. By combining the 3 genera used here another cross is made in the hybrid genus *Lowiara*. We expect oranges mostly, though there will be a wide range of shadings. Sure to be of interest to the connoisseur and of value to hybridizers. Bare root seedlings with 1-1½" leaf length - \$1.75.

#327, Lc. MOLLY TYLER. FCC/AOS X Slc. ANZAC, 'ORCHIDHURST' FCC/RHS. Molly Tyler stems from *Cattleya Bowringiana* and is one of the most handsome dark red hybrids of this type we have seen. Mated with the famous Anzac there should be a high percentage of ruby and plum colors of excellent substance. As is typical of most Slc's., flowers will probably be 4 or 5 inches across in sprays of three to five. Season variable though probably throughout late summer and fall. We feel this is a cross in which to place your confidence. 2½" - \$4.00.

#333, Lc. MOLLY TYLER, FCC/AOS X Lc. CAMOLTY. An interesting and intriguing cross in as much as the Camolty parent is itself a Molly Tyler hybrid. Plants bifoliate, flowers 3 to 5 on a stem, four and 5 inches across, many very dark reddish purple. Season late summer and fall. 2" - \$3.00, 2½" - \$4.00.

#2030, Lc. ANN FOLLIS, (*C. granulosa* X Lc. Ethel Merman). The species *granulosa* has entered into a number of very beautiful novelty crosses within the last few years. Lc. Eugene Casey, C. Pittiana, C. Antigo and Lc. Ann Follis have proven to be beautiful and attractive novelty hybrids and have proven the worth of *C. granulosa* as a parent. Lc. Ann Follis which we have seen have had very heavy textured, satiny flowers in shades of light greenish yellow with very attractive rose isthmus lips. Some have a shading of lavender. If you are seeking the unusual and beautiful, we are sure you will like this cross. 4" - \$10.00, 4½" - \$12.50.

YELLOW CROSSES

#200, C. TRIUMPHANS X Blc. JOYANCE. A large lovely heavy textured yellow with full crimson lip. Seedlings are strong growers. Season throughout the summer. Plants we have flowered have been yellow and orange-yellow of excellent substance with no deformity. 3" - \$6.00, 4" - \$10.00.

#209, Blc. OJAI X Lc. S. J. BRACEY, 'HIGH NOON'. A cross with very good promise of a yellow Blc. with a crimson lip. Season summer and fall. 3" \$6.00, 4" - \$10.00.

#211, C. TRIUMPHANS X Lc. S.J. BRACEY, 'HIGH NOON'. We expect these to be almost entirely in clear yellows and with crimson lips. Seedlings have excellent vigor. Season throughout summer and early fall. 3" - \$6.00 4" - \$10.00.

#218, Blc. CHIEF JOSEPH X C. ARDMORE ALBA. A large rich golden yellow Brasso by a free flowering white with purple lip. The several we have flowered have been light yellow with rose lips. 3" - \$6.00, 4" - \$10.00.

#247, Lc. SANDRA OZELLA, (Lc. S. J. Bracey x C. Aurea, 'Iron-clad'). This is a repeat on a very famous yellow cross bred from two of the most famous parents. There will be many superb yellows, orange-yellows and bronzes with most having solid purple full lips. This cross should be a must on your list if you want a good yellow and are looking for some prize winners. 2½" - \$4.00, 3" - \$6.00, 3½" - \$8.00.

#249, Lc. AMIHION, (L. tenebrosa x S. J. Bracey). The size, shape, richness of color and excellent keeping qualities of this cross have surpassed our expectations. In practically all cases so far colors have been rich dark golden bronze and greenish bronze. So far the lips have all been solid dark purple with no yellow in the throat. A few will have isthmus lips. Free blooming-strong growing. Season throughout summer, though off-season blooms in the winter will not be unusual. 3" - \$5.00, 3½" - \$7.50, 4" - \$10.00, 5" - \$12.00.

#267, (Lc. Rosamunde x Blc. Samoset) x Lc. Luminosa, 'Celeste'. A handsome yellowish lavender by the very brightest possible Laeliocattleya. A speculative cross, though there could be some very lovely yellows with solid purple lips here. 2½" - \$4.00.

#281, Slc. CARLA CARTER, 'REDSKIN' X Lc. EDGAR van BELLE, 'DUBLOON'. A copper colored Slc. by a rich golden yellow with crimson lip Lc. Interestingly, the seedlings of this cross have a tremendous amount of anthocyanin (purple sap) in the foliage. In analogous lines of breeding this make-up frequently indicates a percentage of ruby red and plum shades. There is bound to be a wide range of colors here from yellow through flame, orange and allied colors. 1 3.4" - \$2.00.

#329, Blc. BROCADE X Blc. MALVERN. Two handsome richly colored yellow Brasso Laeliocattleyas. Malvern, as a parent, has several fine richly colored yellows to its credit. 2" - \$4.00, 2½" - \$4.00.

#332, Blc. ZANTURANO, 'LABURNA' X FOTINARA, 'RED FRIAR'.
Somewhat more speculative than #334; however there could be
some interesting yellows, orange-yellows, lavender-yellows and
allied shades. 2" - \$3.00.

#334, Blc. ZANTURANO, 'LABURNA' X Blc. MALVERN, 'APRICOT'.
A superb exhibition yellow brasso in both parents through many
generations. We think those who are after exhibition yellows
will like this. 2" - \$3.00.

#332, Bld. SANTURANO, LABURNA, X TOTINARA, RED FRUIT.
 somewhat more speculative than #334; however there could be
 some interesting yellow-orange-yellow, lavender-yellow and
 allied shades. 2" - \$3.00.

#334, Bld. SANTURANO, LABURNA, X Bld. LABURNA, LABURNA.
 A superb exhibition yellow brass in both parents through many
 generations. We think those who are after exhibition yellow
 will like this. 2" - \$3.00.

IMPORTANT

May we substitute plants of equal value in the same general type and quality for any variety that is sold out?

Quite often if we are permitted to make substitutions where advisable or necessary we can then send stock that is of better value and more to the customer's wishes than stock specifically ordered.

We guarantee satisfaction on all orders.

CONDITIONS OF SALE

1. We reserve the right to limit quantities sold.
2. We do NOT make a packing charge on any order of \$10.00 or more. On orders of less than \$10.00, there is a \$1.00 charge.
3. Unless otherwise advised, shipment will be made via Railway Express, charges collect. We recommend Air Freight on large orders for shipments outside the United States and for shipments to be made during the winter months when there might be danger of the plants freezing enroute. Small orders are shipped parcel post. We prepay on parcel post. Please remit on receipt of invoice.
4. Unless your credit has been established with us, kindly enclose your check, money order, or bank draft to cover payment of your order in full. Ask us about opening an account.
5. California purchasers add 4% state sales tax.
6. Fred A. Stewart gives no warranty, express or implied, as to the productiveness of any of the plants we sell, and will not be any way responsible for the crop. Our liability in all instances is limited to the purchase price of these plants.
7. Plant Loses - Our reputation depends on the results you have and we make every effort to send you the finest possible stock. As they are living things, however, no one can guarantee that a given plant will thrive.

QUANTITY DISCOUNTS

We feel the amateur or private grower is entitled to price concessions when plants are purchased in quantity. The following sliding discount schedule applies on all plants listed in this catalog.

Purchases up to \$99.00 are at net.	\$700.00 - \$999.00	25% discount.
\$100.00 - \$199.00	10% discount	\$1,000.00 - \$1,199.00 30% discount.
\$200.00 - \$399.00	15% discount	\$1,200.00 - \$1,499.00 32% discount.
\$400.00 - \$699.00	20% discount	\$1,500.00 - Up 33-1/3% discount.

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IMPORTANT

May we substitute plants of equal value in the same quantity and quality for any variety that is sold out?

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We guarantee satisfaction on all orders.

CONDITIONS OF SALE

1. We reserve the right to limit quantities.
2. We do NOT make a packing charge on any order unless the order is for less than \$10.00, otherwise a slight charge.
3. Unless otherwise advised, shipment will be made by express, charges collect. We recommend the United States and the Western Express for shipments outside the United States and the Western Express during the winter months when there might be a delay in shipping. Small orders are shipped special parcel post. Please remit on receipt of invoice.
4. Unless your credit has been established with us, your check, money order, or bank draft is required in full. Ask us about opening an account.
5. California purchasers add 4% state sales tax.
6. Fred A. Stewart gives no warranty, express or implied, for the productiveness of any of the plants as sold, and is not responsible for the crop. Our liability is limited to the purchase price of these plants.
7. Plant losses - Our reputation depends on the results of our plants. We make every effort to send you the finest possible material. We are living things, however, no one can guarantee that they will thrive.

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